A NEW SPECIES OF EREMAEUS FROM THE WESTERN UNITED STATES (ACARINA: ORIBATEI, EREMAEIDAE)[1]

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Preliminary studies on the genus *Eremaeus* of North America have shown that this group of mites has a wide ecological range with many species. A rather robust species with deep pits which appear spotted under low magnification, has been found in mountainous areas of Western United States. A description of this new species follows.

Eremaeus stiktos, n. sp.

DIAGNOSIS: Color deep reddish-brown; body and legs more deeply pitted than any known species; pseudostigmatic organs shorter than distance between pseudostigmata; body hairs short and weak; femus of all legs with a double, ventral keel.

DESCRIPTION: Color deep reddish-brown; propodosoma slightly wider than long, about one-third as long as hysterosoma; rostrum rounded; rostral hairs short and projected anteriorly for about one-half their length over the rostrum; lamellae short, rather smooth with roughened medial borders, separated from each other a distance equivalent to their lengths, usually with about six longitudinal rows of large pits between lamellae; lamellar hairs located on antero-lateral margins of propodosoma and extended down over rostrum by about one-third their lengths; interlamellar hairs extremely short, about one-third as long as distance across pseudostigmata, insertions prominent, located posterior to lamellae at level of pseudostigmata; pseudostigmata heavy, cup-shaped, directed antero-laterally; pseudostigmatic organs short, slightly longer than lamellae, with short, rounded setose head and short pedicle as shown in figures 1 and 3; tectopedia I long, directed anteriorly, with roughened edges; tectopedia II shorter than tectopedia I and directed antero-laterally; exobothridial hair slender and located antero-laterally to pseudostigmata.

Hysterosoma oval and slightly vaulted; dorsal hairs short, weak and often hidden by the deep, oval pits that cover the body. Hysterosoma and dorsal hairs as seen in figure 1, nine pairs visible in holotype specimen.

Camerostome egg-shaped in outline with two pairs of medially placed hairs; apodemata I a short transverse bar with lateral extensions divided; the anterior part arching in front of tectopedia II; apodemata III weak, not extending to middle line; apodemata IV coalesced with sclerotized margin of genital aperature; ventral plate

1. Research supported by National Science Foundation.

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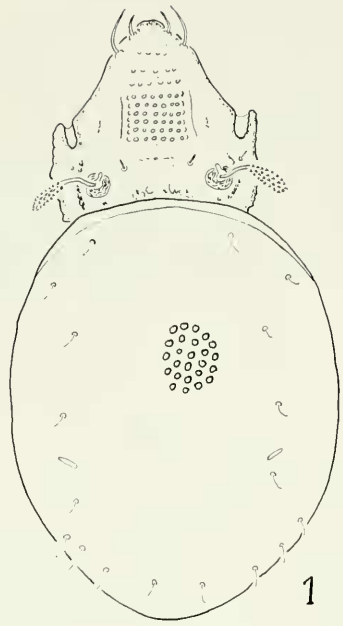

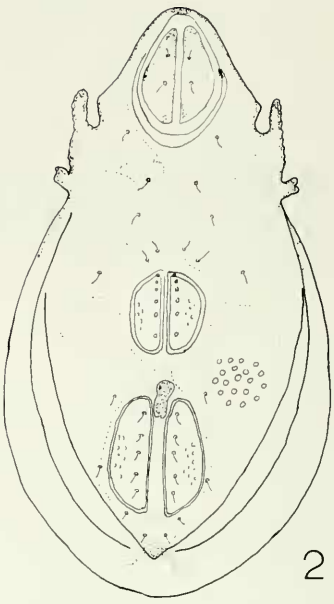

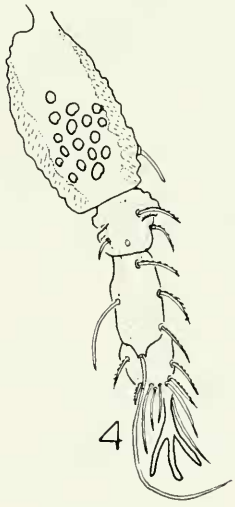

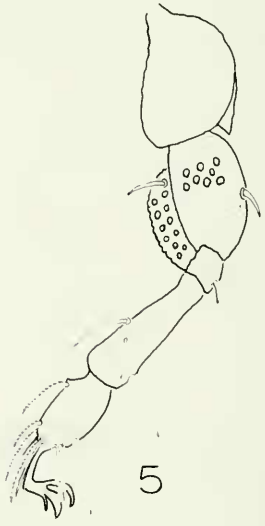

Figs. 1-5. *Eremaeus stiktos*: 1, dorsal aspect; 2, ventral aspect; 3, pseudostigmata and pseudostigmatic organ; 4, leg I from dorsal aspect; 5, leg IV, from lateral aspect.

structures and setae as shown in figure 2; genital aperture oval in outline, surrounded by a sclerotized ring formed by apodermata IV; each genital cover with six unequally placed setae along its median edge; anal opening egg-shaped and separated from genital opening by less than one-half length of genital cover, a sclerotized ring surrounding anal covers which terminates in a point at posterior end, each anal cover with five sub-equally spaced setae along median edge; preanal piece large and extended about one-half the distance to genital opening; four pairs of adanal setae, ad_1 and ad_2 posterior to anal covers. ad_3 at postero-lateral edge of anal plate. and ad_4 near anterior level of anal opening. Entire ventral surface and legs deeply pitted.

Leg I longer than leg II, but shorter than leg IV; all tarsi shorter than their tibia; femur of leg I extending forward to end of rostrum; legs heterotridactylous, middle claw being the largest; the femur of all legs with a heavy, roughened. double. ventral keel. Leg I shown in figure 4; leg IV shown in figure 5.

Total length. 636 μ, hysterosoma, 450 μ; width of hysterosoma, 360 μ.

The holotype and six paratypes are from Farmington Canyon, Davis County, Utah, 2 August 1956 by J. R. Higgins. Additional specimens are as follows:

UTAH: 1 specimen from Lambs Canyon, Salt Lake County. 3 October 1954 by S. Mulaik; 1 specimen from Spruces Recreational Area, Salt Lake County, 5 June 1957, and 1 specimen from the same area 11 July 1957 by H. Higgins; 1 specimen from Diamond Fork Canyon. Utah County. 17 June 1956 by H. Higgins.

WASHINGTON: 2 specimens from Cle Elum, 19 August 1956 by H. and M. Higgins; 1 specimen from lichens at Neah Bay, 22 August 1956, by H. and M. Higgins.

REMARKS: This species of mite is more deeply pitted than any known species of *Eremaeus*. It appears to live in a large variety of habitats in a wide range of elevations. Specimens from Farmington Canyon and the Spruces Recreational Area were taken from litter under a mixed conifer-aspen association at elevations above 7,000 feet. The specimens from Cle Elum were taken from a moss covered log under Douglas fir while the specimen from Neah Bay was found in lichens on a standing tree at sea level.

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